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# Physiology or psychic powers? William Carpenter and the debate over spiritualism in Victorian Britain

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ABSTRACT

This paper analyses the attitude of the British Physiologist William Benjamin Carpenter (1813–1885) to spiritualist claims and other alleged psychical phenomena in the second half of the Nineteenth Century. It argues that existing portraits of Carpenter as a critic of psychical studies need to be refined so as to include his curiosity about certain 'unexplained phenomena', as well as broadened so as to take into account his overarching epistemological approach in a context of theological and social fluidity within nineteenth-century British Unitarianism. Carpenter's hostility towards spiritualism has been well documented, but his interest in the possibility of thought-transference or his secret fascination with the medium Henry Slade have not been mentioned until now. This paper therefore highlights Carpenter's ambivalences and focuses on his conciliatory attitude towards a number of heterodoxies while suggesting that his Unitarian faith offers the keys to understanding his unflinching rationalism, his belief in the enduring power of mind, and his effort to resolve dualisms.





## 1. Introduction

In 1872, the physicist and psychical researcher William Crookes angrily printed a series of letters in a bid to expose the prejudices of the intellectual elite against "scientific men" such as himself "who have learnt exact modes of working" and who "consider it their duty…to examine the phenomena which attract the attention of the public".[1] The printed letters were entitled *Correspondence upon Dr. Carpenter's Asserted Refutation of Mr. Crookes's Experimental Proof of the Existence of A Hitherto Undetected Force* and were intended by Crookes as a means of repairing the injury done to his reputation by his fellow member of the Royal Society, the eminent physiologist William Benjamin Carpenter (1813–1885). The series of seven letters exchanged between Crookes, George Stokes (then the Secretary of the Royal Society), Charles Wheatstone and William Carpenter, reveal the tense diplomatic tiptoeing that was taking place around the topic of psychical research.[2] Neither the secretary of the Royal Society nor his colleagues were satisfied with the parameters of Crookes's experiment, which consisted in using a bowl of water surmounted by a stabilising apparatus to dip a pair of scales. By merely inserting one hand into the water, the operator would be able to exert a "force" without applying any direct muscular pressure on the bowl.[3] The paper submitted by Crookes was rejected twice by the Council of the Royal Society. Nevertheless, despite strong reservations about the scientific legitimacy of the experiment, and in response to Crookes's complaint about Carpenter, the Council admitted that the physiologist had relayed private information without the consent of his sources, and that this was a breach of professional and gentlemanly etiquette.

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[1] Crookes (1874, p. 3).

[2] The term "psychical research", which only became widespread after the Society for Psychical Research (SPR) was founded in 1882, is being used for simplicity's sake in this paper despite the slight anachronism.

[3] For full details and pictures of the experiment in question, see Crookes (1872, pp. 6–8).

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1369-8486/

Crookes was eager for this concession to be made public, because it acknowledged the type of negative attitudes that he was increasingly hitting against.[4] His anger was understandable, for Carpenter's tone in the debate was often condescending at the very least, and the pugnacity with which he criticised spiritualist claims sometimes had the rather undignified flavour of ad hominem attacks. Indeed from the 1850s until his death in 1885, William Carpenter tirelessly opposed what he considered to be a dangerous collective tendency to give in to superstition. Writing and lecturing assiduously on the topic of 'Mesmerism and Spiritualism', 'Thought-Reading' and 'Somnambulism', he did his utmost to debunk popular notions of supernatural agency and otherworldly interferences, in the same way as he had previously criticised the practice of phrenology and with the same energy that he devoted to his campaign against alcoholism.[5] Following what he most probably saw as a family duty,[6] Carpenter positioned himself as a public moralist ready to cross pens with those he felt to be misguiding popular opinion.

Carpenter's vindictive attitude in the debate over animal magnetism and spiritualism in mid-Victorian Britain has been discussed by several historians.[7] The role played by the spiritualist controversy in shaping professional science in the second half of the Nineteenth Century has also been analysed by several researchers such as D. J. Coon and Andreas Sommer, notably in the context of American psychology.[8] Alison Winter and Richard Noakes have shown how this rift allowed scientists to establish their professional authority by drawing clear boundaries between charlatanism and official science. Several other historians and psychologists[9] have referred to Carpenter as one of the seminal early psychologists, and Carpenter's psycho-physiological work and conception of the human mind have been analysed by Roger Smith, Kurt Danzinger and Lorraine Daston.[10] However, the precise arguments used by Carpenter—one of the main voices in the spiritualist debate—have not been fully examined, and, more importantly, his conciliatory efforts are very seldom mentioned, thus yielding a somewhat two dimensional portrait of the scientist. Existing studies do not highlight the changes over time and—I will argue—the strong ambivalences that characterise Carpenter's approach to unexplained phenomena as well as the changing dynamics within nineteenth-century Unitarianism itself. The precise links between Carpenter's physiological arguments and his Unitarian faith—and as we shall see between his faith and his attraction to certain psychical phenomena—thus still need to be closely scrutinised. The present article therefore proposes to analyse William Carpenter's official and unofficial attitudes to what he himself called "pseudo-science", with reference to his Unitarian faith. I will argue that his religious naturalism steered his physiological work, and that in turn, his physiological and psychological concepts coloured his faith and enabled him to consider the possibility of certain psychical phenomena, at a time of theological redefinition within the Unitarian creed.

## 2. I—Transcending opposites

When William Carpenter sallied forth into the world of scientific writing in the late 1830s, the debate caused by the popularity of phrenology in Britain was ongoing.[11] Carpenter joined the fray and became one of its well-known detractors, eventually convincing his friend John Forbes—the editor of the *British and Foreign Medical Review* and initially an enthusiastic phrenologist[12]—of the invalidity of that approach. The study of the brain from a physiological perspective was an emerging scientific discipline, and Carpenter himself was still but a young scientist on the make. He was also a Dissenter who had not yet obtained an academic position and whose previous applications for lecturing jobs in Ireland and Scotland had been rejected on religious grounds. Asserting his competency as a 'specialist' was therefore of prime personal importance to him, and he reminded his various interlocutors time and again that the study of the organ of the brain was best left to physiologists and comparative anatomists, thus advocating a new model of the scientist as a specialist over the increasingly irrelevant model of the 'generalist naturalist' amongst the educated elite.[13]

However, though Carpenter was an unwavering critic of phrenology which he considered to be based on assumptions rather than on true scientific investigation, he employed a didactic strategy to foster dialogue between both camps. His conciliatory approach consisted in highlighting the ideas that overlapped in phrenological and physiological theories in order to show that ultimately, if phrenologists were willing to bring their methods of investigation within the compass of scientific modes of enquiry, both subjects would merge. In 1847, in a private letter to the famous Scottish phrenologist George Combe,[14] Carpenter reprimanded his correspondent for passing some of his work off as phrenological. Nevertheless, though he refused to be publicly associated with phrenology, Carpenter privately made a peace offering to Combe by claiming that his own research had led him to conclusions compatible with certain aspects of the phrenological model[15]:

> For myself I may say that I am now nearer to Phrenology than I have ever been before; and that my progress towards it has been retarded by what I conceive to be a fundamental error in the Metaphysics of Phrenology, –namely, the want of discrimination between *Instincts* on the one hand, and the *Emotions and Propensities* on the other.

Admittedly, George Combe was a powerful socialite and contradicting him too harshly was probably not in Carpenter's interest. However, Carpenter wrote in a similar manner when addressing other phrenologists. Just a few months before writing to Combe, Carpenter had published an extensive review[16] of the latest book by the physician Daniel Noble,[17] in which he also argued in favour of the absorption of phrenology into the science of neurophysiology—on the condition that phrenologists corrected their methodological mistakes.

[4] For an analysis of the public confrontation between William Crookes and William Carpenter, see Noakes (2004, pp. 33–38) and Oppenheim (1985, p. 352).

[5] Carpenter actively campaigned against alcohol abuse in the 1850s, and advocated teetotalism (he himself remained an avowed teetotaller for most of his life). See for example W. B. Carpenter (1853).

[6] Carpenter's involvement in educational ventures can be attributed to his early Unitarian upbringing and consequent distaste for all forms of idolatry or intoxication. Carpenter's older sister Mary Carpenter (1807–1877) was an influential philanthropist like her parents. Engaging in many large-scale educational projects himself, Carpenter no doubt felt compelled to uphold his family's reputation for social reform.

[7] Oppenheim (1985), Winter (1998), Noakes (2004) and Lamont (2004, 2013).

[8] Coon (1992) and Sommer (2012).

[9] Gauchet (1992), Miller (1995), Reed (1997), Wilson (2002) and see also Oppenheim (1985).

[10] Danzinger (1982), Daston (1982) and Smith (1977, 1992, 2013).

[11] Cooter (1984) and Van Wyhe (2004).

[12] Forbes (1840).

[13] Ruth Barton has analysed the increasing professionalisation and therefore changing rhetoric of Victorian science (Barton, 1998, 2003).

[14] W. B. Carpenter (1847; MS 7283).

[15] John Van Whye has posited the rise of phrenology as a major contributing factor in the development of scientific naturalism (Van Wyhe, 2004).

[16] W. B. Carpenter (1846).

[17] Noble (1846).

Thus, Carpenter's main point was about methodological rigor rather than about the overarching postulate of cerebral localisation. For instance, one major theoretical mistake that Carpenter attributed to phrenology—in addition to the erroneous assumption that the shape of the cranium itself was significant—was that it failed to ground the hypothesis of localisation on evidence provided by the science of comparative anatomy. While Carpenter emphasised the fact that the localisation of specific functions of the brain was one of the common aims shared by physiology and phrenology, he also stressed that without comparing the lobes of the human cerebrum with the brains of animals that also exhibited—or lacked—similar abilities, the conclusions of phrenology could not be considered sound. Carpenter therefore vehemently called for phrenologists to embrace comparative anatomy, since it could allow them—merely through a process of elimination—to avoid stumbling into unfounded conjectures.

Carpenter's insistence on the method of comparative anatomy, when considered in the context of his wider scientific endeavours at the time, appears in itself representative of his wish to transcend diverging viewpoints. Indeed, in the first decades of the century, bold new philosophical concepts had been promoted by continental thinkers, shaking the British anatomical traditions of functionalism and natural theology to their foundations. While Carpenter was still a medical student, two rival conceptions of the principles held to shape all organic life on earth had emerged. Both these theories hinged around the notion that comparative anatomy was the key to discovering the laws of speciation and organic development, but they diverged in their interpretations of the analogies observed amongst different organisms. Whereas the scientist George Cuvier (1769–1832) posited four distinct models as the pre-ordained plan on which all living beings were based, Etienne Geoffroy Saint Hilaire (1772–1844) claimed—along with German authors such as Goethe, Oken, Kielmeyer and Meckel—that organisms were variations on a single theme driven by metamorphic processes.

These two different interpretations of the analogies brought to light by comparative anatomy famously came head to head during the Geoffroy-Cuvier debate at the Académie des Sciences in Paris in 1830.[18] This clash of two scientific titans reverberated across Europe, making it impossible for any anatomist to ignore the radical new concepts being proposed. As an emerging physiologist, the young Carpenter made the very deliberate decision to herald these controversial new ideas and although Geoffroy's morphological views were considered to be radical and materialistic by many,[19] Carpenter—who would later be one of the first scientists to openly support Darwin's theory in 1859 despite some reservations regarding the concept of Natural Selection[20]—chose to defend many of the French scientist's propositions. Carpenter balanced his adherence to such radical new theories by also adhering to many of Cuvier's principles (such as the primacy of function over form), which sat more comfortably with the Hunterian view traditionally taken in Britain and which maintained the postulate of divine teleology. In essence, Carpenter was attempting a new synthesis of two seemingly irreconcilable biological theories. This was daring for such a young scientist, and his endeavour earned him scathing criticisms[21] as well as the enduring reputation of having been one of the first scientists, along with Richard Owen (See Ospovat, 1976), to offer a modern synthesis of British Natural Theology and continental ideas. His efforts to bridge these differences demonstrate that from the onset Carpenter did not shy away from heterodoxies, and that he used them not to antagonise the old model but to renew the practice of natural history without endangering the status quo of Natural Theology. By encouraging his contemporaries to look across the Channel for a more inspired practice of inductive science and by promoting comparative anatomy—which by definition consisted in seeing beyond differences to find a common form or purpose—Carpenter was displaying an early tendency to search for unifying principles (which would lead him later to consider philosophical monism) at the risk of transgressing prevailing scientific norms.

## 3. II—Physiology, not spiritualism

It can thus be assumed that Carpenter's mediatory attitude to phrenology and its intellectual shortcomings partook of a wider epistemological project, and throughout his career he would reiterate his conviction that a good "philosophical" scientist[22] ought not be "deterred by the clamour of bigotry and prejudice[23]". Indeed, when he later came to criticise spiritualism, Carpenter continued to wield the arguments he had already levelled at phrenology. In his review of Noble's 1846 book,[24] he had conceded that contrary to chemistry, phrenology did not afford precise results that could be quantified and thoroughly tested, leaving researchers more vulnerable to the universal human foible of seeing what one wished to see. This idea of individuals—whether they be medical patients or scientists themselves—falling prey to "a dominant idea", would also prove one of the central notions behind Carpenter's psychological theory of "unconscious cerebration". The argument of the fallibility of human nature was one of the cornerstones of Carpenter's indictment of spiritualist beliefs, as can be found in his introduction to a series of printed lectures, published in 1877 and entitled "*Mesmerism and Spiritualism Historically and Scientifically Considered*[25]". In this work, Carpenter developed at length—and by referring to many examples taken from history—the idea that most people were liable to become victims of themselves by unconsciously yielding to what he called "suggestion" or a "dominant idea".

Inspired by the experiments on 'hypnosis' carried out in Manchester in the 1840s by his acquaintance the physician James Braid, Carpenter rejected the notion that hypnotic, spiritualist and other trance-like states were the result of occult outside forces acting upon the patient. He insisted that the subject's own expectations triggered what were in fact natural physiological responses, inherent to the individual's own nervous system, and that the spectator's own anticipation of what they wanted to see (mis)guided their interpretation of what they were witnessing. Thus the physiology of the human mind itself, rather than supernatural agencies, was the culprit that led to such contagious "outbreaks of Epidemic Delusion". From the early Christian flagellation manias, to the witch hunts of the Seventeenth Century, from the Catholic 'Convulsionnaires' in eighteenth-century France, through to the European craze for Mesmerism and Spiritualism in the Nineteenth Century, "(…) there ha(d) been a long succession of "Epidemic Delusions", the form of which has changed from time to time,

[18] For a full account of this turning point in the history of anatomy and evolutionary theories, see Appel (1987), Corsi (1988) and Corsi (2011).

[19] See Desmond (1989, p. 210) for an analysis of the radical Dissenting politics behind the promotion of continental morphological theories in England in the 1830s, though Carpenter's aim—if political at all—represented a much more moderate agenda.

[20] See Carpenter's early reviews of the *Origin of Species* (William B. Carpenter, 1860a, 1860b).

[21] W. B. Carpenter (1840).

[22] For an analysis of the concept of "the philosophical naturalist", see Rehbock (1983, p. 61).

[23] W. B. Carpenter (1839, p. 460).

[24] W. B. Carpenter (1846, p. 525).

[25] W. B. Carpenter (1877, pp. 1–9).

whilst their essential nature has remained the same throughout."[26] Carpenter's involvement in public health debates, be it through his teetotalism campaign, or through his longstanding support of small-pox vaccination,[27] most probably coloured his understanding of such trends as collective pathologies.

It seems highly likely that Carpenter's observations of mesmeric and spiritualist sessions, which he conducted alongside his studies of the nervous system in humans and invertebrates, significantly contributed to the formulation of his most fundamental concepts in neurophysiology, namely those of 'unconscious cerebration' and 'ideomotor action'. These ideas, which he expounded in his several editions of his *Human Physiology* and later in greater detail in his 1874 *Principles of Mental Physiology*,[28] formed the basis of his vision of the human mind and in turn conditioned his response to spiritualist claims. Carpenter considered the anatomical structure of the human brain to be coherent with the hierarchy of the human psyche as he had come to understand it from observing altered states of consciousness: memory loss, absent-mindedness, intoxication, sleepwalking, self-delusion and acquired-habits-turned-automatisms, were so many phenomena indicative of another dimension of thought that exceeded usual levels of awareness. This notion of involuntary thought within a subject's mind guided Carpenter's physiological hypotheses and led him to map mental processes in an original way: emotion, reason and the formulation of ideas were all cortical activities that made up the conscious human mind, but thinking could also take place independently, through a process which Carpenter named 'unconscious cerebration'.

Taking a comparative approach like the one he recommended to phrenologists, Carpenter looked at the anatomical structure of the human brain and contrasted it to that of other animal's brains. Considering all vertebrates to be conscious beings, Carpenter searched for common anatomical features, identifying the thalamus and sensory ganglia as the common denominator between species and therefore as the seat of consciousness for all vertebrates. Indeed, for voluntary movement to be initiated, the area in the brain receiving external stimuli needed to be endowed with awareness, whereas not all thoughts were immediately relevant to directing muscular action and therefore did not need to be conscious. This conscious area of the brain that Carpenter named the 'automatic apparatus' was surmounted by the cerebral cortex, which invertebrates do not possess and which is especially developed in humans. This localisation made it more likely, according to Carpenter, to be the seat of higher human thought and unconscious activity. Following this organisation, the ongoing process of unconscious cerebration would only become transmuted into conscious thought, when it travelled downwards from the cortex to the thalamus.

It is worth noticing that Carpenter was again collapsing two apparently contrary notions, by in effect postulating the paradoxical concept that the main organ of the intellect—the cerebrum—was devoid of consciousness:

> At first sight it would appear to be a very startling proposition, that the organ of intellectual operations is not itself endowed with consciousness: but a careful consideration of its relations to the sensory ganglia will tend to show that there is no *a priori* absurdity in such a notion. (…) It will be found much simpler to accept the doctrine of a common centre for sensation and for what may be distinguished as mental consciousness, than to regard the two centres as distinct.[29]

In this setup, the "will" became the keystone of the human mind. According to Carpenter the will was the subject's means of controlling this transmutation of thoughts into consciousness and therefore action. It could become entirely disengaged in certain particular states such as sleep or somnambulism, and was generally liable to being "in abeyance" under the influence of certain substances, or of suggestion, thus prompting "ideomotor action[30]" without the subject realising that he or she was executing these actions.

The implications of Carpenter's physiological and psychological theories for the debate about spiritualism were two-fold. Firstly, they backed his premise that the rational judgement of participants could be clouded and directed by 'dominant ideas' thanks to his anatomically-inspired theory of 'unconscious cerebration'. Secondly, the concept of 'ideomotor action', coupled with the notion that the brain could harbour clandestine thoughts likely to take over if the regulating effect of the patient's will was suspended, provided an explanation for certain phenomena which occurred during séances, in particular 'spirit rappings' and table-turning. Under the power of unconscious cerebration the subject would unwittingly send messages to his or her muscles. These would in turn exert enough force—though imperceptibly—to move objects. Michael Faraday's famous 1853 experiment,[31] which consisted in using a piece of apparatus to pick up and amplify any imperceptible lateral movement of the sitters' hands on tables during séances, was seen by many at the time to validate Carpenter's theory of ideomotor action.

## 4. III—The ultimate power of mind

Yet, despite Carpenter's avowed scepticism and determination to derive an explanation of the human psyche from strictly physiological factors, evidence suggests he might have remained intrigued by certain alleged psychical phenomena. Scholars such as Kurt Danzinger have mentioned Carpenter's Unitarianism[32] as an important factor underpinning his staunch rationalism. This is certainly an important consideration that has not been thoroughly investigated so far. However, it is problematic to talk about nineteenth-century Unitarianism in unqualified terms since the creed was undergoing what R. K. Webb has called a "doctrinal revolution".[33] In the second half of the century, influential theologians such as James Martineau and John Hamilton Thom were resisting the eighteenth-century tradition of rationalism that had come to characterise Unitarianism and were striving to rehabilitate the power of emotion over that of the intellect. A rift was developing between the more 'traditional' rationalist Unitarians who

[26] W. B. Carpenter (1877, pp. 3–4).
[27] For Carpenter's position in the vaccination debate, see W. B. Carpenter (1883).
[28] William Benjamin Carpenter (1876a, 1876b).
[29] W. B. Carpenter (1855, p. 680).
[30] Ideomotor action, according to Carpenter, was a physiological response (such as crying) or muscular action that occurred without a subject consciously deciding to carry it out. For some of Carpenter's key articles on the brain see: W. B. Carpenter (1852, 1868, 1871a, 1871b, 1873). For an analysis of Carpenter's main concepts from the point of view of twentieth-century neuroscience see: Clarke & Jacyna (1987).
[31] See Faraday's article of June the 30th 1853, to the Editor of the (London) Times for a full description of the experiment.
[32] British Unitarianism—in its Eighteenth Century and early Nineteenth Century acceptation—was a protestant denomination that grew out of the earlier Socinian and Arian sects and gathered many of its members from the Presbyterians. It rejected the dogma of the trinity as well as the divine nature of Jesus Christ.
[33] For a detailed sketch of the theological changes that redefined late eighteenth-century and nineteenth-century Unitarianism, see Webb (1986, p. 18, 1990). See also Seed (1985) for an analysis of the social and political changes within eighteenth-century Unitarianism.

remained attached to necessitarian materialism, and the new idealistic Unitarians who sought a more emotionally satisfying interpretation of the creed.

Carpenter was influenced both by the rational Unitarianism of his early upbringing, and by the new trend led by Martineau who was a close friend. He had also inherited an ambivalent approach to the notions of mortality and the human soul taken from the late Eighteenth Century seminal Unitarian thinkers Joseph Priestley (1733–1804) and Theophilus Lindsey (1723–1808). Priestley, although a materialist in all other respects, had retained a belief in certain miracles accomplished by Christ and had broken with the mortalist[34] view prevalent amongst many Unitarians. Instead he held that the human soul, despite being a physical entity, did not die with the body but merely "slept" until the day of resurrection.[35] Nineteenth-century Unitarian thought, under the influence of Martineau, further distanced itself from the denomination's earlier materialist and mortalist roots. Carpenter's Unitarian beliefs were thus multiple: he had been steeped as a child in the materialist definition of the human mind promoted by David Hartley and was also influenced by Priestley's understanding of the immortality of soul, believed in Christian miracles as a young man, and later took a keen interest Martineau's new theological ideas. We can therefore conjecture that in spite of his Unitarian training which encouraged him to favour rationality, Carpenter's rejection of psychical claims was not so much based on radical materialist assumptions as on consistently failing to be convinced by what he witnessed. In a letter to Alfred Russel Wallace on April 9th 1864, Carpenter explained:

> I quite agree with you that the influence of one organism upon another through a force capable of acting at a distance, producing the phenomena of community of sensation, thought-reading, etc. is quite conceivable; and I have several times thought that I had satisfactory evidence of such an action. But I have never yet found that this evidence has borne careful sifting, –my experience having always been that when the first exhibition had been well thought over and the possible sources of fallacy eliminated on a second attempt, this attempt has been a failure.[36]

This extract shows that although Carpenter was never convinced by Spiritualism, he remained very intrigued by the possibility of 'thought reading' or 'thought transference'. Carpenter seems to have been at the very least startled by what he saw on several occasions from the mid 1870s onwards. His correspondence with William Stainton Moses in particular, provides some valuable insights into the physiologist's ongoing curiosity as to the possibility of genuine psychical phenomena. In 1876, William Stainton Moses (1839–1892)—who would become the first president of the London Spiritualist Alliance in 1883 and is famous for the notebooks he kept in which he conversed with his "spirit-guides"[37]—wrote to Carpenter to engage him on the topic of spiritualism. Carpenter's initial replies to Moses were curt, urging his correspondent not to waste his time. When pushed on his hostility to psychical phenomena however, Carpenter gave a reply that highlights his impatience with the topic, but also—and more importantly—his belief that all matter was governed by *Mind*:

> You are quite mistaken if you suppose that I have not given a very large amount of time and attention to the investigation of "spiritualistic" phenomena. I went on for *several years*, with a large basis of previous experience of mesmerism, odylism, and the like; until the absence of any positive result, and the accumulation of negative results, made me feel it a waste of time to pursue the matter further. (…) When you have had forty years of scientific experience, and have thereby gained some aptitude in the distinction between scientific and pseudo-scientific "facts", you will perhaps entertain a little more doubt than you now express as to the reality of your "force unknown to science and governed by an intelligence outside of Man". *I* believe *all* force (not human) to be so "governed" (…).[38]

Carpenter ended the letter with a firm intimation that their correspondence was not to be pursued. However, a few months later Stainton Moses wrote to Carpenter to inform him of the presence in London of Henry Slade whom he held to be an outstandingly gifted new Medium. Carpenter accepted to attend a séance and on the 9th of August 1876 sent Moses the following remarkable reply[39]:

> I had a séance with Dr Slade yesterday; and do not hesitate to say that what I saw fully satisfied me that the matter is one deserving of further investigation. If not a piece of jugglery of the most wonderful kind, the phenomena are of a nature that no hypothesis I have hitherto applied will account for. Of course in Dr Slade's own room the possibilities of the former hypothesis are numerous, but he professes himself quite ready to come to my house, and confident that he shall succeed well with my table, slates and chairs, as with his own. (…) I must request that you will not make public in any way either the fact of my visit to Dr Slade, or what I have now written. I have made the same request to the Editor of *The Spiritualist*, who has given me his promise to that effect. I do not wish, in the present stage to be committed to anything except enquiry.

The correspondence seems to have been discontinued at this point, but the existing letters pose some important—and hitherto unasked—questions about the true nature of Carpenter's interest in psychical phenomena. It appears unlikely that Carpenter was feigning interest, and the fact that he urged his correspondent not to divulge his opinion lends further weight to the idea that he was privately, if not publicly, thinking anew. Moses himself seemed confident that Carpenter's interest was sincere, for shortly after receiving his letter he wrote to Thomas Massey to report Carpenter's fascination, rejoicing about having at last "shot down his bird[40]"—though whether or not this statement was based on any further admission by Carpenter remains unclear. The following October, Henry Slade was charged with fraud by the young scientist Edwin Ray Lankester. Carpenter was probably instrumental in the investigations but the exact role he played, as well as his reaction to the trial, are still currently unknown.

What is certain however, is that Carpenter's curiosity about such unexplained phenomena began to concern his colleagues T. H. Huxley, John Tyndall, and George Romanes—the latter complaining to Darwin in 1881 that he had got in a row with Carpenter over

[34] Christian mortalists held that all form of human thought and consciousness died along with the body.

[35] Bower (2007, p. 34).

[36] See British Library manuscripts collection, A. R. Wallace papers (W. B. Carpenter, 1864).

[37] Stainton Moses (1898).

[38] (Letter dated January 29th, 1876.) Correspondence kept at the College of Psychic Studies, London. Cited with the College's kind permission (W. B. Carpenter, 1876a, 1876b). Emphasis original.

[39] Stainton Moses Correspondence, College of Psychic Studies, London.

[40] Letter from Stainton Moses to Charles Carleton Massey, August 14 1876, courtesy of Jeffrey Lavoie and Leslie Price.

thought-reading.[41] The episode of Carpenter's support for the American mentalist Washington Irving Bishop (1855–1889),[42] indeed, lends further weight to the hypothesis that the physiologist may have become partial to the notion of thought-transference. The American physiologist George Miller Beard (1839–1883) had early on used Carpenter's theory of imperceptible involuntary muscular movements to debunk the claims of thought-reading professed in the 1870s by the American mentalist J. Randall Brown. After observing Brown's work, Beard had declared that no thought transference was taking place and that the activity practiced by Brown would be better explained as 'muscle reading'. Bishop, who may have been a former assistant of Brown's according to certain unverified sources,[43] crossed the Atlantic in 1880 and began displaying similar aptitudes in London: just as Brown before him and just as his own secretary Stuart Cumberland (1857–1922) would soon begin to do, Bishop proved able to guess the exact location of an object that had been hidden in a room during his absence, merely through holding his subject's hand or placing it on his forehead. Carpenter was greatly impressed by these abilities, which to all intents and purposes seemed to furnish proof of ideomotor action as an unconscious means of non-verbal communication. However, it seems that Bishop's abilities, rather than comforting Carpenter in his theory, unsettled him quite profoundly.

Faced with an increasingly 'uncarpentarian' Carpenter, Thomas Henry Huxley in particular was beginning to seethe with disapproval. The changing dynamics between both men are revealed by a letter from Carpenter to Huxley dated from the 16th of June 1881[44]: responding to what was most likely a remonstrance by his friend for supporting Bishop, the physiologist went to great lengths to explain why he felt the latest demonstration by the performer—whom, significantly, he had invited to his home to carry out an "experiment" on himself and members of his family in the presence of Huxley—could not merely be dismissed as an example of fraud:

> I think you must forget the very remarkable experiment which he showed us three times —each time successfully. A card having been drawn, and recognized by the person experimented on, he dealt out sixteen cards, laying them with their faces downwards on the table. Of course he knew where the selected card was, but the "subject" did not. Having seen him do this trick (if you please to call it so) twice, I offered myself as the third subject, and describe it as I recollect it. I stood before the cards and he stood by me holding my right hand in his left. I selected the vertical row headed 2, through which I have drawn with one line.[45] Then, (2), "drop down on another". I selected the line headed 4, through which I have drawn two lines. (…) The remaining card 7 was then turned up, and proved to be the card originally chosen. Now I had been very carefully watching for any twitch or other guidance given by him, but could detect nothing; and the experiment made a very strong impression on me, as showing how, in choosing among indifferent things, we are insensibly guided by unconscious influences. The impression of all of us at the time was that, you saw it in the same light.

As can be seen in the quotation, the subject of the experiment was asked to select a card from a pack, look at it, then return it to Bishop, who spread out sixteen cards face down in four parallel rows upon a table. The subject (who no longer knew where his or her card was located) was then asked to indicate which row—either vertical or horizontal—he or she wanted Bishop to remove. This action was repeated until just a single card remained. Invariably, when flipped over, the last card turned out to be the one initially selected by the subject. This result startled Carpenter who had held Bishop's hand and had scrutinised his body language without managing to find any evidence of muscular suggestion. Thus, when faced with a performance that he could have explained in terms of ideo-motor action, Carpenter seemed on the contrary to have become aware of the limitations of his own theory, failing to find it convincing *in situ*.

With hindsight it is easy to imagine that Bishop not only knew the position of the chosen card—a possibility that Carpenter himself acknowledged—but also controlled it, therefore placing it on the grid in a position that would leave it statistically likely to stand alone at the end.[46] I argue that in this context, both Carpenter's apparent naivety and surprising silence[47] on the topic of "ideomotor action" are significant in themselves. Had Carpenter been closed to the idea of thought-transference, the results of the experiment would have allowed him to re-assert his theory of unconscious muscular guidance and to quell Bishop's claims regarding telepathy. Yet, Carpenter not only chose to publicly recommend Bishop—*de facto* validating the performer's claims—but also went to the trouble of re-asserting to Huxley the fact that he was puzzled, even implying that Huxley was being intellectually dishonest. I suggest that these elements, when considered in context and coupled with Carpenter's insistence on the conveniently vague terms of "unconscious suggestion", may indicate his growing partiality to the hypothesis of telepathy.

Carpenter's ambivalent attitude and willingness to risk his reputation angered his colleagues. Coming from a scientist who had until then proved such a famous debunker of false claims, Carpenter's public interest in Bishop was felt to be harmful to the respectability of the scientific establishment. The popular and scientific interest sparked by Carpenter's fascination for Bishop prompted Romanes, Francis Galton, E. Ray Lankester and George Croom to test Bishop's manners of proceeding. The opening lines of Romanes's report on the experiment, published in Nature on the 23rd of June 1881,[48] read as a clear indictment of Carpenter's epistemological faux pas:

> There is no doubt that Mr. Bishop owes this wide and sudden celebrity to the patronage which was extended to him by the great opponent of all humbug; and although Dr. Carpenter doubtless intended his letter to exert a salutary influence by recommending Mr. Bishop to the attention of the credulous, it is to be regretted that it served to recommend him also to the attention of the scientific.

[41] Romanes (1881a).

[42] For a study of Bishop's centrality in the "thought-reader craze" that swept through London in the in the 1870s, see Wiley (2012, pp. 63–75).

[43] This information can be found in several online articles (see for eg: Bishop entry in Wikipedia) but has been questioned by Barry Wiley (personal communication).

[44] See folio 21, Carpenter to T. H. Huxley (W. B. Carpenter, 1851–1883).

[45] Carpenter attached a drawing of the sixteen cards to his letter, indicating the order in which each row had been taken away.

[46] Barry Wiley has kindly brought to my attention the letter written by Thomson Whyte in *Nature*, June 30, 1881, p. 188. In response to Carpenter's letter about Bishop's card experiment published in the previous issue, Whyte gave two methods that could explain the trick: using a deck in which all cards were the same, or controlling the selection of the final card through what is called variously, Magician's Choice, Verbal Control or Equivoque. It is once again interesting to notice that Carpenter was aware of this technique (which he alluded to his article and in his letter to Huxley) yet considered it not to have been applied by Bishop in this particular instance. A treatise written by the mentalist Phil Goldstein provides informative insights into this technique. See Goldstein (1976).

[47] Throughout his letter, Carpenter never uses the expression "ideomotor action" or "muscle-reading".

[48] Romanes (1881b).

Curiously, despite the accusatory disclaimer initially levelled at Carpenter, the rest of the report seems in fact to go along with Carpenter's verdict that Bishop was not a fraud:

> From this brief summary of the results gained by following Mr. Bishop's own methods, it will be seen that on the whole his power of localising objects or places thought of by a person whose hand he clasps is unquestionably very striking. Of course the hypothesis which immediately suggests itself to explain the *modus operandi* is that Mr. Bishop is guided by the indications unconsciously given through the muscles of his subject –differential pressure playing the part of the words "hot" and "cold" in the childish game which these words signify. (…) Deeming it a remarkable thing that such precise information as to a mental picture of locality should be communicated so instantaneously by unconscious muscular movement, we thought it desirable to ascertain whether Mr. Bishop, who is able so well to interpret these indications, is endowed with any unusual degree of tactile sensibility or power of distinguishing between small variations of resistance and pressure… but found that he did not display more than a usual delicacy of tactile perception.[49]

The ambiguous tone of the report, attacking Carpenter on the one hand while concurring with him on the other, seems to reflect the very paradoxes that lay at the heart of the 'spiritualist debate' within the scientific community. The somewhat double-sided nature of Romanes' report raises many questions about the public strategies employed by sceptics, since what appears to all intents and purposes to be an inconclusive report, is nevertheless dressed in the language of dismissive scepticism. It is also surprising that the possibility of fraud was not more seriously investigated: there was a direct personal link between the three performers who displayed these remarkable abilities—a link no doubt indicative of a certain amount of acquired technique, yet no mention is made of Bishop's assistant in the report, and one can wonder to what extend gentlemanly decorum restricted the range of objective tests carried out by investigators. At any rate, the portrait of Carpenter that emerges from looking more closely at his relationship to psychical research appears much less straightforward than the one generally given of him by historians, and even perhaps than the one he himself tried to construct.

The growing divergence between William Carpenter and T. H. Huxley over the topic of psychical research is revealing of Carpenter's wider intellectual stance. If Huxley is to be taken—as he usually is—as a prime example of scientific naturalism, it becomes clear that Carpenter falls into a different category.[50] Though he never ceased to defend the need to explain the human mind rationally, based on objective observations of the anatomical structures and physiological functions of the organ of the brain, he remained first and foremost indebted to religious naturalism and did not agree with a mechanist vision of living organisms. It is this nuance in Carpenter's materialism, I argue, that left him—in spite of his staunch discourse against psychical phenomena—more susceptible to consider hypotheses implying the immaterial nature of mind. The debate in which he engaged with Huxley in 1875 about whether or not man was an 'automaton',[51] gives extra insights into Carpenter's understanding of the mind and illustrates what Andreas Sommer and Roger Smith[52] have suggested about the common concern prevalent among philosophers, physiologists and medical hypnotists of the time: to maintain the primacy of the traditional rational soul as the agent of moral responsibility over that of a potential unconscious self. Carpenter's stress on the Will as the last fortress independent volition and moral responsibility can indeed be read, in the epistemological context of the time, as a metaphysical and methodological manifesto in favour of religious naturalism over scientific naturalism and its associated claims.[53]

At the 1874 Belfast meeting of the BAAS, and later the same year in an essay entitled "*On the Hypothesis that Animals are Automata and its History*[54]", T. H. Huxley had defended the slightly modified Cartesian point of view according to which animals—and therefore human beings—were not unconscious machines, but "conscious automata" set in motion by their nervous systems and equipped with a special apparatus in the brain which produced those states of consciousness more generally known as sensations, emotions and ideas. Huxley also asserted that if animals had any volition at all, "it (was) an emotion indicative of physical changes, not a cause of such changes." Huxley was seconded in his claims by the physicist John Tyndall and by the mathematician William Clifford who stated in an article published in the *Fortnightly Review* of December 1874[55] that the postulate "the will influences matter" was "nonsense". Carpenter immediately took issue with these views and expressed his disagreement in *The Contemporary Review* of February 1875[56] as well as in the preface of the fourth edition of his *Principles of Mental Physiology*.[57]

Indeed, Carpenter's colleagues' statements attacked the central notion that he had been developing throughout his career, namely, that of an "Ego" or "Will", which could counter-balance and even counteract physical determinism.[58] Huxley's arguments also went against Carpenter's postulate of a two-way influence between external stimuli and internal stimuli (emanating from the will) on human physiology and human thought. Carpenter strongly disagreed with Huxley's idea that the discovery of the reflex action of the cerebrum by Thomas Laycock had put the nail in the coffin of the concept of "volition" as being an independent process thanks to which an individual could exert control over his or her body. In Carpenter's view, the new understanding of the human brain only meant that the will was one step removed from the execution of the actions it prompted, instead of being directly responsible for them. It did not have "immediate voluntary control over the muscles", but it had "the power of making the automatic apparatus perform anything that lies within its capacity".[59] In other words, the new understanding of the organ of the brain as being analogous to other lower nervous centres, did not bring with it the necessary corollary that a higher level of independent volition was no longer possible:

> That there is a *mechanism* of thought and feeling, the action of which forms part of the life of the body (…) can be doubted by no psychologist who is also a physiologist. (…) But is this all? Have we no power to control and direct this automatic cerebral action, as the cerebral action itself directs and controls the action of the lower centres? Does the body of man constitute his *whole self*, or is there an *Ego* to which that body is in any degree

[49] Romanes (1881b).

[50] The standard reference for a study of reactions to Victorian scientific naturalism is Frank Turner's work *Between Science and Religion* (Turner, 1974). See also Turner (2010).

[51] Roger Smith has also recently discussed this debate (Smith, 2013, chap. 2).

[52] Sommer (2013, p. 210) and Smith (2013).

[53] This particular interpretation is also given by Daston (1982, p. 96 and 111).

[54] Huxley (1888).

[55] Clifford (1874).

[56] W. B. Carpenter (1875).

[57] William Benjamin Carpenter (1876a, 1876b).

[58] In promoting the concept of the Will as a moral agent, Carpenter seems to have blended ideas borrowed from the British empirical school of philosophy with principles derived from Kant's idealism (in particular the concept of categorical imperative) as interpreted by James Martineau.

[59] W. B. Carpenter (1875, p. 279).

> subservient? To these questions it does not seem to me to be within the capacity of physiology –limiting that term to man's corporeity—to give an answer. (…) But to say that this is the only way in which science permits us to regard it, is to disregard that on which all science is based—experience. Surely our own immediate mental experiences are as worthy of confidence, as are deductions drawn from phenomena outside ourselves.[60]

Carpenter was drawing on one of his central philosophical tenets, which he had adapted from the Scottish school of empiricist and 'Common Sense' philosophy: the fact of experiencing one's own independence of intention, was proof enough of the existence of this independent power of volition or "will".[61] He therefore opposed Huxley's underlying argument (and other similar assertions such as those previously made by De La Mettrie in France[62]) that the human mind was simply a by-product of human physiology, a mere response to external forces. He argued in favour of a much more fluid, two-way view of the relationship between mind and body, turning around Huxley's own assertion that "neuroses could give rise to psychoses" and arguing therefore that " it was surely quite accordant with the great fundamental principle of interaction to affirm that conversely psychoses could give rise to neuroses; just as the electricity generated in a voltaic battery by chemical change, could itself produce chemical change.[63]"

William Carpenter's Unitarian culture and religious views one again offer keys to interpreting his attitudes to the human mind and consequently to psychical research. The Unitarian wish to strip Christianity of superstition and obscurantism underpinned Carpenter's vision of the relationship between science and religion, making science the only true means of attaining revelation.[64] As previously mentioned, the young William's education had also been steeped in the work of David Hartley. Thus Carpenter's interest in the mutual relationship between body and mind as well as his premise that the human mind could be understood through the study of the physiology of the brain, is doubtless a result of the materialist Hartleyian principles he had imbibed as a child. However, by the 1840s Carpenter had broken away from Hartley's necessitarianism, following James Martineau's theological shift towards a more romantic interpretation of the creed, inspired by German thought and Kant's ideas in particular.[65] The correspondence between both men reveals that Carpenter turned to Martineau for guidance in matters of philosophy and religion, a fact also attested by Carpenter's son Joseph Estlin Carpenter.[66] The thoughts of Joseph Estlin Carpenter himself, who became principal of the Unitarian College in Oxford (Manchester College) from 1906 until 1915 and who openly spoke in favour of the possibility of life after death for the human spirit, are the clearest available clue as to his father's probable belief in the immortality of the soul.[67]

As a Unitarian, Carpenter also gave special value to the notion of the *unity* and *uniformity* of natural laws as evidence of a teleological universe, which also tied in with his philosophical dual-aspect monism according to which mind and matter were part of the same divine reality.[68] Pursuing his quest for the greatest possible denominator behind all observable phenomena, Carpenter became particularly fascinated with the emerging theory of the correlation of physical forces,[69] more specifically with the law of conservation of energy developed amongst others by James Prescott Joule, William Thomson and William Grove. Working along the lines of Grove's hypothesis, Carpenter posited an equivalence between heat and light, seeing them as two different manifestations of one supreme all-pervasive energy, or "force". According to Carpenter's model, since solar radiation was the ultimate cause of all heat, and since the formation of the sun itself was the result of nebular condensation—in other words the ultimate known creative event in the universe—, the cause of all force must surely have emanated from the "Divine First Cause". For Carpenter, this correlation was a revelation of the divine unity of plan behind nature and seemed to point to the origin of all matter, all movement and all living things as residing in an immaterial "force".

Going one step further, Carpenter equated this force with the manifestation of a divine *mind*.[70] His reasoning on this particular point was clinched by his physiological doctrines: much as Carpenter's Christian faith had influenced his teleological view of nature, it seems that conversely, his physiological concepts about the relationship between body and mind furnished him with the theological arguments in favour of the existence of God. Indeed, the ability of living beings to relate to the world around them through what he called their "force sense", in other words, the fact that neurophysiology had proved that there was no physical causation of force in a human being without the involvement of mind, it necessarily followed that the ultimate First Cause behind the functioning of the Universe was some form of meta-mind or Divine will:

> As a Physiologist, I most fully recognise the fact that the Physical Force exerted by the body of Man is not generated *de novo* by his Will, but is derived from the oxidation of the constituents of his food. But holding it as equally certain, because the fact is capable of verification by every one as often as he chooses to make the experiment, that, in the performance of every volitional movement, that Physical Force is put in action, directed, and controlled, by the individual personality or *Ego*, I deem it just as absurd and illogical to affirm that there is no place for a God in Nature, originating, directing and controlling its forces by His will, as it would be to assert that there is no place in Man's body for his conscious Mind.[71]

Thus Carpenter's Unitarian culture, which accommodated materialist as well at teleological arguments, enabled his scientific thought to develop within the framework of an expanded and revised natural theology that welcomed new hypotheses about the history of living organisms and the nature of the human mind. Carpenter's underlying conception of the Divine First Cause as a *mental* power, his understanding of all physical reality as being an immanent divine *intellect*, and his partiality to the doctrine of the immortality of the soul, may have authorised him—even though he

[60] W. B. Carpenter (1874, p. 282).
[61] Carpenter wrote several essays on his understanding of the philosophical concept of 'common sense'. See for example William B. Carpenter (1872b).
[62] La Mettrie (1747).
[63] W. B. Carpenter (1874, p. 283).
[64] Raymond & John (1986, pp. 127–164) and Schofield (1997).
[65] Waller (1986, pp. 246–49).
[66] J. E. Carpenter (1888).
[67] J. E. Carpenter (1898).
[68] For a characteristic expression of Carpenter's dual-aspect monism which he might have borrowed from Gustav T. Fechner's theory, see William B. Carpenter (1872a, p. 762).
[69] Carpenter, inspired by the work of William Grove with whom he corresponded on the subject, tried to correlate the laws of physics and the principles of living matter in an attempt to unify all laws governing creation (William B. Carpenter, 1860c). See also Hall (1979).
[70] William B. Carpenter (1872a, p. 747): "I expressed the opinion that Science points to the origination of all Power in Mind. This is no new doctrine (…) but I think that it derives a new importance from the recent development of the Dynamical Philosophy, which looks at Matter as the mere vehicle of Force and regards the various modes of Force, how diverse soever in their manifestations, as mutually convertible."
[71] W. B. Carpenter (1880, p. 50).

seems to have remained dissatisfied with their findings—to sympathise with investigations into "undiscovered forces".

## 5. Conclusion

Carpenter navigated the hazardous waters of new scientific theories at a time when professional respectability was increasingly becoming measured through the application of standardised methods of investigation and institutional accountability. Through campaigning against superstition and in favour of a rational education for all, Carpenter did his utmost to ensure that such transparency and objectivity became fully integrated not only into scientific practice, but into British culture as a whole, gaining a reputation as one of the greatest sceptics of his time. His stern and pugnacious personality also played a part in spreading an inflexible image of him as the "great debunker of all humbug", an authoritative reputation which he no doubt courted to a certain extent. Nor was Carpenter exempt of the very foibles that he so relentlessly denounced in human nature[72]: his pride in a religious culture that questioned orthodoxy was by no means stronger than his ambition to become part of the intellectual establishment at a time of increased social mobility for Dissenters. His public discourse on psychical research must therefore be examined as a potential social and political strategy, rather than as a faithful reflection of the interests and doubts he may have entertained privately.

Previous studies have suggested that Carpenter's Unitarianism, taken as a strictly rational creed, might have conditioned his negative response to psychical research. I have argued that Carpenter's denominational culture is indeed central to understanding his thought, but that it encouraged rather than discouraged his efforts to find agreement between alleged psychical phenomena and scientific research. As Unitarians became better integrated into the intellectual establishment of the nation, the theological shift within the creed towards a less rational understanding of faith may have encouraged individuals like Carpenter to consider new possibilities regarding the human soul. Unitarian culture nevertheless also remained rooted in a tradition of free enquiry and defiance towards established authority, and this epistemological posture may have made it easier for Carpenter to embrace unconventional ideas such as thought-transference. Above all, and especially when taking into consideration his work as a naturalist, Carpenter's overarching intellectual trajectory appears to have been characterised by a constant effort to conciliate rather than by the wish to antagonise, an attitude that perhaps resonated with the wider historical context of the second half of the Nineteenth-Century, which some historians have dubbed 'the Age of Equipoise[73]'. Finally, it seems apparent that Carpenter's personal definition of Unitarianism drove him, almost as a rule, to transcend diverging viewpoints in order to prove the unity of all creation, claiming that "the truth appear(ed), in common with so many disputed questions, to be in the mean between the opposing extremes.[74]" It thus seems likely that overcoming dualisms was Carpenter's central philosophical premise in striving to remain objective, and it hoping to reveal the unity of God through science.

[72] A good example of Carpenter falling prey to a "dominant idea" and "seeing what he wanted to see" was his involvement in the Eozoön Canadense debate from 1864. For two decades, Carpenter maintained that the Canadian rock sample was a fossil of one of the oldest Foraminifera (and therefore living organisms) ever found on the planet, disagreeing with geologists who claimed—rightly so, as was later confirmed by twentieth-century geology—that the patterns were a mere geological artefact. See O'Brien (1970).

[73] See W. L. Burn (1964) and M. Hewitt (2000).

[74] W. B. Carpenter (1838, p. 333).

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